AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT	1. CONTRACT ID CODE	PAGE 1 OF PAGES 20

2. AMENDMENT/MODIFICATION NO.	3. EFFECTIVE DATE	4. REQUISITION/PURCHASE REQ. NO.	5. PROJECT NO. *(If applicable)*
0003	15 Ocotober 2003	SP0600-04-0652	UNITED ARAB EMIRATES

6. ISSUED BY CODE SP0600

ATTN: BEVERLY WILLIAMS
DEFENSE ENERGY SUPPORT CENTER
8725 JOHN J. KINGMAN RD., SUITE 2945
FORT BELVOIR, VA 22060-6222 PHONE: 703-767-9348
EMAIL: beverly.j.williams@dla.mil FAX: 703-767-9338

7. ADMINISTERED BY *(If other than Item 6)* CODE

8. NAME AND ADDRESS OF CONTRACTOR *(No., street, county, State and ZIP Code)*

CODE FACILITY CODE

(X) 9A. AMENDMENT OF SOLICITATION NO.
X SP0600-03-R-0155

9B. DATED *(SEE ITEM 11)*
08 August 2003

10A. MODIFICATION OF CONTRACT/ORDER NO.

10B. DATED *(SEE ITEM 13)*

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☒ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended, ☒ is not extended.

Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods:

(a) By completing Items 8 and 15, and returning 1 copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. Accounting and Appropriation Data *(If required)*

13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

(X)	
	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: *(Specify authority)* THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES *(such as changes in paying office, appropriation date, etc).* SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER *(Specify type of modification and authority)*

E. IMPORTANT: Contractor ☐ is not, ☒ is required to sign this document and return 1 copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION *(Organized by UCF section headings, including solicitation/contract subject matter where feasible.)*

1. The solicitation is amended to reflect changes to Clause B34.01 and Attachment 2. The clause is reprinted in its entirety for easier substitution into the Certification Package (see Pages 2 through 11). Attachment 2 is reprinted in its entirety for easier insertion into the solicitation (see pages 1 through 9). The previous Clause B34.01 and Attachment 2 are hereby deleted.

2. All other terms and conditions remain the same.

Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER *(Type or print)*		16A. NAME AND TITLE OF CONTRACTING OFFICER *(Type or print)*	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA	16C. DATE SIGNED
(Signature of person authorized to sign)		BY *(Signature of Contracting Officer)*	

B34.01 SERVICES TO BE FURNISHED AND PRICES (DESC FEB 1991)

The services to be furnished during the period specified herein and the unit prices are as follows:

C-1 **Description of Required Services**: The following terms and conditions are applicable to obtain the necessary services and facilities to receive, store, and ship U.S. Government-owned petroleum products within a 50 mile radius of Dubai, United Arab Emirates (UAE) area for the period beginning April 1, 2004.

C-1.1 **Area of Consideration**: Within a 50 mile radius of Dubai, United Arab Emirates.

C-1.2 **Storage Tank Requirements**: Approximately 2,000,000 barrels (shell capacity) of storage:

(1) 1,000,000 barrels of JP5 (minimum 500,000 barrels, maximum 1,000,000 barrels of JP5)
(2) 1,000,000 barrels of F76

A minimum of two tanks per product, interconnected and isolated from other facilities and products handled within the tank farm is desired, however, one tank per product will be considered. *Dedicated facilities are required*.

C-1.3 **Grade of Service**: Two grades of product:

(1) Aviation Turbine Fuel - Grade JP5
(2) Navy Distillate - Grade F76

C-1.4 **Physical System Requirements**: Storage and handling facilities capable of receiving, storing, protecting, and shipping two grades of U.S. Government-owned petroleum product. A dedicated system is preferred, however, a common system will be considered, providing the offeror(s) submit the data required by Clause L116.01, Data Required to be Submitted. In addition to the data required by Clause L116.01, the potential Contractors will be required to provide the tank cleaning and inspection data required by Clause E18 as part of their proposal. The tank cleaning and inspection data will be evaluated and utilized as an evaluation factor in determining the Government's risk associated with the utilization of the facility.

C-1.5 **Estimated Throughput**: The U.S. Government will be entitled to initial fill and final shipment free of charge during the 5-year performance period, in addition to 3,000,000 barrels of total product turnover in a 12 month period, hereafter referred to as allowed throughput. Offerors shall indicate any additional throughput charge for volumes in excess of the allowed throughput under Subline Item 1001AA. Initial Fill is defined as all receipts required to fill the storage tanks to 100% of the awarded safe fill capacity. Final Shipment is defined as all issues required to withdraw 100% of the awarded safe fill capacity. The 3,000,000 barrels of allowed throughput is defined as the total receipts (JP5/ F76) in a 12-month performance period plus the total shipments (JP5/F76) in a 12 month performance period, divided by two. Excess throughput charge will be calculated by multiplying the number of barrels received/shipped by the excess throughput charge offered under Subline Item 1001AA.

C-1.6 **Property Control, Records and System Records**: The Contractor shall provide Property Control and System Records in compliance with paragraph (a) (1) of Clause I119.04. The

Contractor furnished computer system shall meet the current commercial standards for a computer system capable of accomplishing the data reporting and records keeping required by the Fuels Automated System (FAS); maintaining the data collection and records keeping associated with product quality surveillance (i.e., product analysis and testing reports); and the document collection and records associated with the Contractors preventive maintenance program, etc.

C-1.6.1 The Contractor shall input inventory and sales data of Government-owned product directly into the Government's Fuel Automated System (FAS) utilizing the Contractor-furnished computer system via the Contractor-furnished internet access (with static IP address capability) or creation of a dial-in account to the DESC FAS web server. Additional data and requirements can be found in Clause I119.04.

C-2 **General Information**:

C-2.1 **Product Receiving Requirement**: The Contractor's facilities shall be capable of receiving U.S. Government-owned product via ocean going tankers/barges or U.S. Navy Fleet Oilers on a 24-hour per day, seven day per week basis at pumping rates compatible with the mode of transportation tendered (minimum 2,000 barrels per hour for barges and 8,000 barrels per hour for tankers and Fleet Oilers).

C-2.2 **Product Shipping Requirement**: The Contractor's facilities shall be capable of shipping U.S. Government-owned product via ocean going tankers/barges or Navy Fleet Oilers on a 24-hour per day, seven day per week basis at pumping rates compatible with the mode of transportation tendered (minimum 2,000 barrels per hour for barges and 8,000 barrels per hour for tankers and Fleet Oilers.

C-2.3 **Tank Truck Fill Stand Facility**: The Contractor's truck fill stand facility shall be capable of simultaneously loading and shipping four tank trucks at a combined rate of 1,000 gallons per minute. The tank truck loading and shipping capability is required for JP5. The Contractor is responsible for loading and shipping tank trucks on a 5 day work week schedule; 8:00 a. m. to 5:00 p. m. week ends and local holidays excepted. Hours worked in excess of these hours will be on an overtime basis (see Clause G148.05). **(NOTE: The normal United Arab Emirates work week is Sunday through Thursday).**

C-2.4 **Berthing and Mooring Facilities**: The Contractor's berthing and mooring facilities shall be capable of handling a minimum 40,000 dead weight ton (DWT) vessels with an overall length of 800 feet with a minimum draft of 39 feet at mean low water from the Contractor's berthing and mooring facility to the open ocean. The offeror shall provide any port restriction requirements and harbor fees with their proposal, along with height restrictions from ship's manifold to the waterline during loading/unloading.

C-2.5 **Product Quality Surveillance**: The Contractor will be responsible for maintaining the quality of the Government-owned product stored at the Contractor's facility. The Contractor shall develop a Quality Control Plan covering the following: Shipping and Receiving, Storage and Handling, Sampling, Testing, and Calibration.

C-2.5.1 The Contractor shall reimburse the U.S. Government the cost of the product and the cost of disposal or remediation of all product that becomes contaminated while at the Contractor's facility due to Contractor negligence.

C-2.5.2 The Contractor shall report immediately to DESC Middle East or the QSR all receipts or on-hand stocks that fail to meet product quality for receipt, storage or shipment. Suspected off-specification product will be isolated and shall not be released for shipment until authorized by DESC Middle East or the QSR.

C-2.6 **Ancillary Facilities**:

C-2.6.1 **Storage Tanks**: All storage tanks must meet the minimum requirements of the current American Petroleum Institute (API) standards and all local laws, regulations, etc. applicable to the tanks and facilities to be provided. Cone roof tanks with internal floating pans are preferred however, floating roof tanks will be considered if they are equipped with roof drains which prevent water from coming into contact with the product to be stored. The bottom portion of the floating roof that contacts the product should be epoxy coated. Additionally, the floor and at least 3 meters up the side of any tank offered must be epoxy coated. The tanks shall be interconnected to provide the capability of recirculation and filtration of product between tanks. The facility must be equipped with illumination to allow receipt/issue operations during hours of darkness. **NOTE:** The requirement for tank coating relates to Aviation Turbine Fuel – Grade JP5 storage only.

C-2.6.2 Contractor-furnished filtration system that meets the specifications outlined in the current API Publication 1581, Specifications and Qualification Procedures Jet Fuel Filter Separator. The capability must exist to filter product during tank-to-tank transfers under max flow conditions, as a minimum. **NOTE:** The requirement to filter product on tank-to-tank basis relates only to Aviation Turbine Fuel – Grade JP5.

C-2.6.3 Contractor-furnished injection system(s) to inject additives as follows: The additives (Fuel System Icing Inhibitor (FSII), Corrosion Inhibitor/Lubricity Improver (CI/LI) will be injected by the Contractor based on product specification requirements. Injection requirements apply to JP5 stocks. (See Clause F45.03)

C-2.6.4 The Contractor shall provide laboratory services to test U.S. Government-owned petroleum products. If the Contractor cannot provide full testing capabilities identified in Attachment 4 acceptable to the Government, the Contractor shall be responsible for shipping the required samples to a laboratory specified by the Government representative within the Middle East. As a minimum, the Type C testing capability, including flash point, identified in Attachment 4 shall be available within the Contractor's facility. The calibration of testing equipment shall be in accordance Clause E1.11, Quality Control Plan (DESC MAR 2000).

In the absence of any contract provision or referenced method, specification, or other instruction, the Contractor shall perform all services in accordance with the best commercial practices.
All standard clauses applicable to overseas COCO contracts apply to this requirement, including the following:

Clause F45.03: Operation of the Fuel System Icing Inhibitor (FSII) Additive System. The clause shall include the statement: a stainless steel tank is preferred however, all proposals will be evaluated. A nitrogen blanket will be required.

C-3 **Quality Surveillance Procedures**

C.3.1 **Quality Control Plan**

C.3.1.1 Contractors shall provide and maintain an inspection system and a written Quality Control Plan (QCP) for handling DESC owned product that is acceptable to the USG Quality Representative. Prior to receipt of product into the facility, the Contractors shall forward two copies of the QCP for the facility in English to the assigned DESC Quality Assurance Representative (QAR). The QCP shall be established and reviewed for adequacy by the QAR prior to commencement of services. An acceptable QCP is required prior to Government inspection and acceptance of services. The QCP shall be reviewed and updated when deemed necessary. It will be updated anytime that change is made to the inspection system or as identified by quality problems. Contractor must sign and date each revision to the QCP.

C.3.1.2 The QCP shall include an identification of key operational positions, a schematic diagram of terminal facilities pertinent to the inspection system indicating all inspection points, and a description covering the following operations relating to the services to be furnished under the AR.

a. **Receiving**: Procedures used to maintain integrity of the DESC owned product during receipt by tanker, pipeline, and/or tank truck /rail tank car.

b. **Additive Blending**: Procedures to be used for adding, prior to batching or issue to customers, all required additives. When line injection of additives is performed, the QCP will provide procedures for proportionately injecting additives throughout the entire loading process to ensure the additive is homogeneously blended into the jet fuel, procedures for maintaining recordings evidencing the homogeneous blending of all line injected additives. Additive injection must utilize flow proportional injector.

c. **Sampling**: Procedures for sampling additives, vessel compartments, receiving tanks, shipping tanks, pipelines, and tank trucks as applicable in accordance with API Manual of Petroleum Measurement Standards (MPMS), Chapter 8, Section 1, (ASTM D 4057) Sampling of Petroleum and Petroleum Products, and/or Section 2, (ASTM D 4177), Automatic Sampling of Petroleum and Petroleum Products. Procedures include location of sample taken, frequency, quantity, minimum tests required on sample, and sample retention procedures. Representative line samples taken in accordance with MPMS Chapter 8, Section 1, are acceptable for pipeline issues/receipts and vessel receipts. Annex II, Sampling and Testing, and Table I of same annex provides sampling requirements.

d. **Testing**: Types of tests and test methods/procedures to be performed on samples taken from each location identified in (iii) above, and may be incorporated by test method reference in the QCP. Annex II, Sampling and Testing, and Table I of the same annex provides testing requirements.

e. **Calibration**: Program for testing and measuring equipment in accordance with ISO 10012-1, “Quality Assurance Requirements for Measuring Equipment, Part 1, or equivalent local regulation as appropriate; and, a program for meters used to determine quantity complying with the American Petroleum Institute Manual of Petroleum Measurement Standards, Chapters 4, 5, and 6, or equivalent government standard. For items not covered by ASTM, API or IP publications, the applicable manufacturer's recommended calibration method, or methods outlined in the applicable industry publication, shall be used if acceptable to the QAR.

f. **Storage and Handling**: Procedures for quality determination and maintenance of physical equipment necessary to ensure product integrity. Includes a description of storage and handling equipment including tanks, lines, valves, and manifolds used; identification of

dedicated/common product system including description of line segregation and controls to assure capability for proper gauging, sampling, draining of water, filtration, circulation, drying; and identification of any other process/system used in maintaining product integrity during storage and handling.

g. **Loading and Shipping – General**: Procedures for product movement and related quality/quantity checks from shipping tank(s) to dispensing area and spur line in order to maintain product integrity. Provide description of transfer system from shipping tank to transfer point in order to maintain product integrity. System must be a dedicated or properly isolated common system incorporating blind flanges, spectacle plates, or double valves between them to prevent contamination. Single valves designed to provide the same protection are also acceptable if positive isolation is assured. Systems with single valve (excluding twin seal single valves) isolation require specific procedures be included in the QCP to assure product integrity after the last single valve and prior to the acceptance point, these procedures must be acceptable to DESC. Procedures for conditioning and testing of improperly isolated systems to the custody transfer point (including loading arm and hoses used).

h. **Loading and Shipping – Tankers and Barges**: Procedures for maintaining time log of all significant events/delays including vessel notice of readiness, vessel arrival, docking, vessel deballasting, and conditioning of cargo tanks, inspections, hoses connected, starts, stops, release, or any other event that affects lay time of the vessel. Procedures for assuring condition of loading line (full of tested product, all air bled and pressure packed) and gauging shore tanks, both before and after loading. Procedures for preload discussion between Contractor, vessel, and QAR to include, but not be limited to, prior three cargoes, cleaning procedures, loading plan, loading rates, sampling requirements, and after loading sampling and gauging. (Prior lo loading – sample, gauge and test in transit cargoes designated for load on top. Sample (1 gallon), gauge and retain any other product on board, except for JP-7 or JPTS. All cargo quantities will be calculated and volume corrected both before and after loading. Procedures for commencement of loading into one tank (up to 3 feet). Then switching to at most two other vessel tanks during sampling and testing. Procedures for the transportation of samples from vessel to the testing facility. Monitoring the loading from source to vessel, investigating irregularities immediately, stopping loading if necessary. Procedures for investigating discrepancies in quality (mandated if off-specification or out of testing tolerance) and quantity (mandated if ship to shore variance is greater that 0.5 percent or figures suspect) on loaded conveyance.

i. **Loading and Shipping – Tank Trucks**: Inspect conveyances prior to loading to determine quality/quantity suitability to load as follows: All compartments have been prepared in accordance with Annex III, Conversion Chart for Tank Cars and Tank Trucks. Preparation requirements include hoses. All conveyances shall be inspected by the Contractor prior to loading to determine suitability for loading. Conveyances will be dry and substantially free from loose rust, scale and dirt. Procedures to determine suitability to load tank trucks shall include but not be limited to visual inspection of interior compartments to assure cleanliness and dryness. Manifolds must be drained and be clean and dry for intended product and the tank truck / rail tank car must be capable of sealing. (Procedures to confirm, prior to loading, quality and quantity of product in conveyance when requested by the DESC QAR or military customer to "load on top." Reject conveyance if product cannot be identified or product on board does not meet specification of intended load product. Provide for documentation of load on top occurrences for volume of product prior to load, loaded quantity, and total volume on board the conveyance. Confirm quality and quantity of loaded conveyance.) Provide for investigating discrepancies in either recorded quality or quantity. Seal conveyance and record seal numbers on the DD Form 1348-7. Filter/separators **(used for JP5)** shall be used at all load racks for all deliveries except deliveries

into tanker, barge, or pipeline. The Contractor shall furnish and periodically inspect strainers and filters pursuant to this paragraph to determine condition and perform maintenance as necessary, keeping a written record thereof. A daily record of filter differential pressure shall be maintained.) If the Contractor and the QAR disagree as to the suitability for loading of Government furnished conveyance with DESC owned product, the determination of the QAR shall govern.

j. **Records and Reports**: To include at a minimum, test reports on product, vessel port logs, vessel notice of readiness, and the DD Forms 1348-7 and 250-1 and continuation sheet(s). These records and reports will include by whom, where, and how prepared, and retention information. The DD Form 250-1 and continuation sheet(s) will be signed by SERL in the appropriate block before presenting to the QAR.

k. **Corrective Action**: Actions to be followed to effect correction of any deficiency affecting product quality or quantity determination, such as handling of off-specification product (waivers, conveyance rejections, etc.) The corrective action procedures shall include notification of the QAR.

C-3.1.3 The QCP shall identify one individual to serve as a point of contact for quality/quantity matters relating to the inspection system described in the plan.

C-3.1.4 The Contractor is responsible for all inspection systems, QCPs, and product quality and quantity at their respective terminals handling USG owned product.

C-3.1.5 The Government QAR will be available to review and discuss the proposed QCP for each facility; however, the Contractor shall remain responsible for developing and describing acceptable quality control procedures. The inspection system and related operations provided or performed pursuant to this agreement shall be subject to surveillance by the QAR.

C-3.1.6 **Taking of Samples**: A test log book should be maintained for all samples tested.

C-3.1.7 **Sampling Apparatus, Containers, and Procedures**: WARNING! All safety instructions shall be strictly observed.

a. Approved type sampler containers shall be used as specified by ASTM, API, Department of Transportation or International Civil Aviation Organization. Samples of aviation fuel submitted specifically for water and sediment determinations shall always be collected in clear glass bottles and protected from exposure to sunlight.

b. All sampling apparatus and containers shall be thoroughly clean and dry and special care shall be taken so that no lint or fibrous material remains in or on them. Unless otherwise specified in the test procedures, apparatus and containers shall be rinsed with a portion of the product being sampled to ensure the sample is not contaminated with the previous material. Coated cans that have been presoaked with a product are preferred when sampling for water reaction and for thermal stability. If not available, then clear or amber gallon glass jugs work very well. If clear glasses are used, then they shall be prepared (e.g.: wrapped in aluminum foil) to prevent light absorbance. Sufficient product shall be flushed through the sample lines and fittings before taking any sample to ensure the sample is representative of the product. Sampling apparatus shall be cleaned immediately after use and stored so it will remain clean until next use.

c. Unless specifically required for special testing, do not take samples through storage tank clean-out lines, manifolds, water draw-offs, bleeder valves, or hose nozzles. Such samples will not be representative of the product in the tank. When it is necessary to sample service station tanks and access to such tanks cannot be gained though a manhole or sampling hatch, the tanks may be sampled through a servicing hose after first discharging from the hose a volume of product estimated at two-times the capacity of the piping system.

d. Containers such as drums shall be sampled with a thief. In sampling drums and cans, care shall be taken to remove all foreign matter from the area near the enclosure before the plug is removed.

e. Close all sample containers tightly, immediately after taking the sample. Do not use sealing wax, paraffin, rubber gaskets, pressure sensitive tapes, or similar material to seal containers. Light sample containers shall be adequately crated to withstand shipment. To prevent leakage caused by thermal expansion of the product, do not fill any sample container above 90% capacity.

f. As of October 1996, samples for air shipment of turbine fuels and automotive gasoline shall be in UN1A1 cans, NSN 8110-01-371-8315 (1-gallon), with 4G fiberboard boxes, NSN 8110-01-436-7340 (drum and box combination). The round sample can, NSN 8115-01-192-0935, is suitable for ground shipment of fuels products, via United Parcel Service (UPS).

C-3.1.8 **Precautions**:

a. Samples of jet fuel and kerosene shall be well protected from contamination and direct sunlight by using clean, dry cans or brown bottles. Some of these products, especially gasoline, will change color rapidly on short exposure to sunlight and result in rapid increase in gum and decrease in stability.

b. If the API gravities of fuel samples taken from the top, middle and bottom of a tank do not differ by more than the reproducibility precision statement of the test method used for the type of liquid in question, then make a composite of these samples for additional testing. If the variation is greater, test the samples separately because the fuel may have stratified. In this case, each of the various stratified layers shall have to be tested independently for conformance to the product specification.

C-3.1.9 **Size of Samples**:

a. **Normal Sample Size**: Normally, liquid samples submitted for analysis shall not be less than 4 L (one-gallon) size; semisolids shall not be less than 2.25 kg (five pounds).

b. **Special Sample Size**: Special samples and gasoline samples requiring ASTM D 909 aviation supercharge method of determining performance numbers shall be of 20 L (five gallons) size unless otherwise directed.

c. **Jet Fuel**: Samples of jet fuel requiring full-specification testing shall be 8 L (two gallons), 4 L (one gallon) of which will be used for the filtration time/particulate contamination test.

C-3.1.10 **Identification of Sample**s: Identify each sample container immediately after sampling by securely attaching a sample tag. Information on the tag shall include the location of the

facility at which the sample is taken, name of personnel taking the sample, grade of material, quantity represented, specification of material when known, storage tank number and location, date sample was taken, type of sample and reason for sample. For SDA results, specify tank ambient temperature and request correction of conductivity value to that temperature.

a. **Markings**. In the case of packaged products, the complete markings shown on the container shall be furnished. The container from which the sample was taken shall be marked with the sample number for future identification.

b. **Sample Serial Numbers**. Each sample shall be assigned a serial number that shall be determined by taking the calendar year as the prefix number and assigning consecutive numbers as the samples are submitted. For example: the first sample submitted in 2002 would be 02-1, the second 02-2, and so forth. Such sample numbers shall be shown on the sample identification tag, all shipping documents and correspondence pertaining to the sample.

C-3.1.11 **Retained Samples**: Unless otherwise specifically instructed, samples shall be retained in accordance with the table (**SEE Attachment 2**) for reference purposes.

C.3.2 **Sampling and Testing**

C-3.2.1 **Sampling**: All samples shall be taken in accordance with MPMS, Chapter 8, Section 1, Sampling of Petroleum and Petroleum Products, and/or Section 2, Automatic Sampling of Petroleum and Petroleum Products, or as prescribed by product specification or requirements.

C-3.2.2 **Precautions**: The precautions required to ensure representative sampling are many and depend on type of product being sampled, the type of container from which it is drawn and the sampling procedures employed. Each procedure is suitable for sampling a specific product under definite storage, transportation and container conditions.

C-3.2.3 **Personnel Conducting Sampling**: Because improperly taken samples can completely invalidate a test, only trained and experienced personnel shall be assigned to sample the products. This cannot be overstressed: No amount of laboratory work will give reliable data on a product if the sample is not a true representation of that product.

C-3.2.4 **Responsibility**: This standard shall in no way alter any assigned responsibility of the various activities outside the continental United States for submitting special samples to a designated laboratory or as directed by cognizant headquarters.

C-3.2.5 **Types of Samples**: A sample is a portion of fuel taken which represents that entire batch or delivery. The various types of samples follow:

a. **All-level Sample**. One obtained by submerging a closed sampler to a point as near as possible to the draw off level, then opening the sampler and raising it at such a rate that it is between 70 and 85 percent full as it emerges from the liquid.

b. **Running Sample**. A sample obtained by lowering a beaker or bottle to the level of the bottom of the outlet connection or swing line and returning it to the top of the oil at a uniform rate such that the beaker or bottle is between 70 and 85 percent full when withdrawn from the oil.

c. **Upper Sample**. A spot sample obtained from the middle of the upper third of the tank contents.

d. **Middle Sample**. A spot sample obtained at the middle height of the tank contents.

e. **Lower Sample**. A spot sample obtained at the middle point of the lower third of the tank contents.

f. **Top Sample**. A spot sample obtained six inches below the top surface of the tank contents.

g. **Drain Sample**. One taken from the draw off or discharge valve.

h. **Bottom Sample**. One taken on the bottom surface of the tank, container, or pipeline at its lowest point. The drain and bottom samples are usually obtained to check for water, sludge, scale, or other contaminants.

i. **Single Tank Composite Sample**. A blend of the upper, middle, and lower samples of the tank contents. The portion of the sample quantity to be taken at each level varies according to the type of tank and shall be determined by MPMS, Chapter 8.

j. **Conveyance Composite Sample**: A blend of individual all-level samples from each compartment of the ship, barge, or carrier that contains the same grade of product in proportion to the volume of product in each compartment.

k. **Outlet (suction) Sample**: One obtained at the level of the tank outlet.

l. **Automatic Sample**: A sample obtained from a pipeline conveying the product in such a manner as to give a representative average of the stream throughout the period of transit.

m. **Mixed Sample**: One obtained by mixing or vigorously stirring the contents of the original container and then pouring out or drawing off the quantity desired.

n. **Tube or Thief Sample**: One obtained with a sampling tube or special thief, either as a core or spot sample from a specified point in the container.

o. **Batch/Lot Samples**: One obtained from a collection of units of packaged products.

LINE ITEM 1001 (MUCC): The prices for the services and facilities to be provided during the performance of the five-year multi-year period (1 APRIL 2004 through 31 MARCH 2009) includes the following:

TANK NUMBER TANK TYPE/PRODUCT TO BE STORED	SHELL CAP. (BARRELS)	FILL CAP (BARRELS)	USE CHARGE PER TANK PER MONTH (PRORATED FOR PART MONTHS)(INCLUDES INITIAL FILL & FINAL SHIPMENT

SUBLINE ITEM 1001AA
For the first 3,000,000 barrels of product received after initial fill, per year or prorated for part thereof for any part year that the use of the storage is limited to a period of less than one year …….NO ADDITIONAL CHARGE (Included in Tankage charge)

SUBLINE ITEM 1001AB
For the first 3,000,000 barrels of product loaded and shipped from storage prior to final shipment, per year or prorated for part thereof for any part year that the use of the storage is limited to a period of less than one year ……..NO ADDITIONAL CHARGE (Included in Tankage charge)

SUBLINE ITEM 1002 (EXTP)
Excess throughput: In excess of 3,000,000 barrels of throughput per year or prorated part thereof for any part year that the use of storage is limited to a period of less than one (1) year, the Contractor will be reimbursed $____(multi-year) per barrel. Throughput is clearly defined in Clause B34.01, para. C-1.5 under Estimated Throughput.

SUBLINE ITEM 1003 (LABS)
The government shall reimburse the contractor for the actual costs of the tests by a commercial laboratory. All other associated costs are to be included in the monthly use charge costs. Invoices for reimbursement shall be submitted to the QSR for certification and include supporting documentation.

SUBLINE ITEM 1004 (FEES)
The contractor shall be reimbursed for fees associated from airport/harbor/use fees. Invoices for reimbursement shall be submitted to the QSR for certification and include supporting documentation.

SUBLINE ITEM 1005 (FSII)
The Government will normally purchase and provide the Anti-Icing Additive. In those cases where the contractor is required to purchase the additive, the Government will reimburse the contractor for direct costs incurred in acquiring such additive. (See Clause F45.03).

SUBLINE ITEM 1006
Purchase of Corrosion Inhibitor/Lubricity Improver
The Government will normally purchase and provide the Corrosion Inhibitor Additive. In those cases where the Contractor is required to purchase the additive, the Government will reimburse the contractor for direct costs incurred in acquiring such additive (See Clause F45.04).
(DESC 52.207-9F85)

C.3.3 Table I. Minimum Sampling and Testing Requirements for Petroleum Products

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
1	Storage tanks and pipelines, for Pipeline Shipments or Vessel Loadings of Government Stocks.					
1a	Storage tanks	Bulk	Before shipment	Upper, middle, and lower composite, or all-level composite from each storage tank.	Appearance, API gravity, color, flash point, filtration time, FSII, water reaction (as applicable)	Government-owned stocks in tanks that have been tested previously within 90 days need only Type C. Referee sample will be retained.
1b	Pipelines	Bulk	Immediately after start of shipment	Line sample	C	
1c	Pipelines	Bulk	Every hour after start of shipment	Line sample	Visual	
1d	Pipelines	Bulk	During Loading or Shipment	Representative line Composite IAW API MPMS, Chapters 8.1 or 8.2.	Retained composite	Sample to be retained as Referee. Testing to be conducted will be based on the situation.
1e	Storage Tanks	Bulk	After pipeline receipt	Upper, middle, and lower composite or all-level composite from each storage tank.	B-1	Sample to be retained until issue or receipt.
2 /	Vessel discharge					
2a	Tankers and barges (multi-product cargo)	Bulk	Prior to discharge	All level from each tank	Appearance and density	If on-spec, discharge authorized.

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
				Volumetric composite of each cargo on board.	B-1	These tests will be performed prior to or during discharge of cargo. In the event the capability for testing does not exist at the discharge point, a composite sample from the vessel will be retained, type B-1 tests performed on an all-level sample taken from the receiving tank. If receiving tank fails spec requirements, perform B-1 tests on the tanker retain composite sample to determine the cause of the off-spec problem.

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
	Tankers and barges (single-product cargo)	Bulk	Before discharge	Composite sample of ship or barge tanks.	Type C	Discharge is authorized after conformance with Type C tests. Retain composite sample until the receiving tank analysis is complete. If product fails, perform Type B-1 tests on retained composite to help determine the cause of the off-specification problem.
2b	Dock/discharge manifold header	Bulk	During discharge	Sample IAW API MPMS, Chapter 8, commencing one half hour after start of discharge and each hour after until completion of the discharge. One-half quart to be taken each time. Sample to be composited after completion of discharge. Also, one gallon at one hour, midpoint, and one hour prior to completion.	Retained composite Particulate2	Retained for referee tests. For barge receipts directly into A.F. bases, refer to agreement of minimum standards.
	Dock/discharge manifold header		During discharge	For split cargo discharges where one product is JP-5, JP-8, or F-76, and other product is JP-4, MOGAS, or AVGAS, a dock header sample will be taken during discharge of the JP-5 or JP-8 or F-76 one half hour after start of discharge and hourly thereafter.	Flash point	

Attachment 2

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
2c	After receipt of fuel by waterborne transport.	Bulk	After receipt of fuel.	Upper, middle, and lower composite, or all-level Composite. (from each storage tank)	Type B-1 Plus JFTOT	
3 /	Pipeline and TC/TT receipts.					
3a	After receipt of fuel by pipeline systems used for more than one product.	Bulk	After receipt of fuel	Upper, middle, and lower composite, or all-level composite. (from each storage tank)	Type B-1 Plus JFTOT	
3b	After receipt of fuel through a dedicated system.	Bulk	After receipt of fuel.	Upper, middle, and Lower composite, or all-level composite. (from each storage tank)	Type C, except on initial filling or change of grade. Then, B-1 would be required.	

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
4 /	Transfers within installation or depot					
4a	Through a dedicated system.		After receipt of fuel	Upper, middle, and lower composite, or all-level composite.	Type C	Samples will be retained for two months for referee purposes.
4b	Through a common system.	Installations & Depots	After receipt of fuel.	Upper, middle, and lower composite, or all-level composite.	Type B-1Plus JFTOT	
5	Dormant Stocks wherever located.	Bulk	Periodically, as required by TABLE II	Upper. middle and lower composite or all-level composite (see remarks).	B-2 or A (see remarks)	a. Separate samples; upper, middle, and lower shall be taken and tested to establish homogeneity. If homogenous these samples shall be mixed for required tests. If not, perform B-2 tests on each level of product. b. Additional tests may be performed at the discretion of the owning or custodial authority, having regard to type of product, age of stock, conditions of storage, etc..
6	Filling Points for road and rail tank car containers, or other equipment.	Bulk	Daily on first container filled, and on changeover to fresh feed tank after completion of line displacement from the fresh feed tank.	Line sample	Type C	
7	In rail tank cars and road tank vehicles and refuelers used in over the road transportation	Bulk	Both after loading and before discharge	All level sample from the rail car or vehicle.	Appearance on each compartment "C" minus flash point on composite	See notes 3, 4 and 6.

SERIES	LOCATION OF STOCKS	TYPE STORAGE	WHEN SAMPLED	TYPE SAMPLE[1]	TESTING REQUIRED	REMARKS
8	Tanks containing interface mixtures from pipeline for re-injection.	Bulk	Before re-injection	Upper, middle, and lower composite, or all-level composite.	Type B-3	Re-injection of interface product is to be under the technical control of the pipeline authority, or IAW with O.A.
9	Refueler trucks, skid mounted refuelers, or other dispensing equipment.	Bulk	(a) Daily (b) Monthly	Line sample. Note: After re-circulation of fuel	See remarks 5	(a) Visual check for appearance, and water & sediment. (b) Lab analyses for water & sediment
10	FSII and CI/LI dormant stocks greater than 12-months old	Bulk	12 months	Middle sample	FSII – Appearance, Density, Acid Number, pH, water. CI/LI – Density and viscosity	For FSII test methods per MIL-DTL 85470 For CI/LI test methods per QPL 25017
11	Storage Tank	Bulk	When Requested	All Level	TBD	N/A

LEGEND
Type “A” Test - Complete specification inspection tests.
Type “B-1” Test - Partial analysis comprising the checking of principal characteristics most likely to have been affected in the course of moving the product.
Type “B-2” Test - Partial analysis to verify characteristics susceptible to deterioration because of age.
Type “B-3” Test- Partial analysis for contamination; in particular, for controlling the re-injection of pipeline interface products.
Type “C” Test - Relative density, flash point, color (visual), and appearance, including visible sediment and water.

TABLE I. NOTES:

[1] Use the API Manual of Petroleum Measurement Standards (MPMS), Chapter 8, Sampling, Section 1, Manual Sampling for sampling methods

[2] The average particulate content of the 3 fuel samples should not exceed 2 mg/L; however, the first and last samples are obtained under severe discharge conditions and may show high particulate content. Solid contamination while extremely objectionable is a physical contaminant which can be removed under proper conditions with proper equipment, and since the product at this point is Government owned, discharge operations will not be discontinued for this reason. However, the contracting officer, Defense Energy Support Center, and the quality assurance representative at the loading point will be advised of any high particulate results obtained. This advice would be used for future planning purposes and for determining possible cleaning actions necessary to the vessel involved. This note is not applicable to internal Navy transfers.

[3] Flash point at the receiving point is not required for product that is to be used by the U. S. Army. Fuel is tested in accordance with Army quality surveillance program in AR 710-2

[4] If unable to take an all-level sample from the truck compartment prior to discharge, then take an in-line sample at or near the off-loading header during the discharge, immediately upon product displacement of the receipt manifold/hose.

[5] When laboratory tests of material from dispensing and handling equipment show evidence of free water or a sediment level exceeding 1.0 mg/L of fuels, or 10.0 mg/L for diesel fuel, that equipment shall be re-sampled and not used pending laboratory confirmation of the initial results. If the second laboratory analysis confirms the presence of free water or a sediment content exceeding 1.0 mg/L, improvement in fuel quality must be made.

[6] Terminals performing SDA injection shall have the required conductivity meter to perform the test on site.

C-3.4 Table II. Types of Tests Required on Aviation Turbine Fuel – Grade JP5.

PROPERTIES	B-1 TEST	B-2 TEST	B-3 TEST	C TEST
Appearance[1]	X	X	X	X
Color (visual)	X	X	X	X
Density or API gravity	X	X	X	X
Particulate matter	X	X	X	
Distillation	X	X	X	
Copper strip corrosion	X	X	X	
Freezing point	X	X	X	
Existent gum	X	X	X	
Flash point	X	X	X	X
Water reaction	X	X	X	
Lead content (If contaminated with leaded fuels suspected)		X	X	
Fuel system icing inhibitor	X	X	X	
Filtration time	X	X	X	
Water separation index [2]	X	X	X	
Conductivity [3]	X	X	X	
Thermal stability		X		
Color (Saybolt)		X		
Acid number		X		

TABLE II NOTES – JP5:

[1] Clean and bright and free of undissolved water. Obtain sample in a clear round one quart glass bottle, swirl the bottle vigorously so a vortex is formed. Visually check for sediment at the point of the vortex. If sediment is visible, an investigation is necessary in order to determine the source of the contaminant. (a spot larger than 3 mm diameter indicates corrective action may be required to prevent the delivery of contaminated fuel)

[2] Water separation index, modified, testing is not performed if the fuel contains conductivity additive.

[3] If fuel contains conductivity additive, CU readings should be taken within two minutes of sampling.

C-3.4 Table III. Types of Tests Required on Navy Distillate – Grade F76.

PROPERTIES	B-1 TEST	B-2 TEST	B-3 TEST	C TEST
Appearance[1]	X	X	X	X
Color				
Density and API gravity	X	X	X	X
Distillation	X	X		X
Flash point	X	X	X	X
Carbon residue (diesel fuel only)	X	X		
Cloud Point		X		
Pour point		X		
Copper corrosion		X		
Cetane index [2]		X		
Viscosity		X		
Water & sediment by centrifuge		X		
Particulate (A-A-52557 & F-76)	X	X		

Accelerated stability		X		
Sulfur[3]		X[4]		

TABLE III NOTES – F76:

[1] For NATO F-76, if the sample fails clear and bright (ASTM D 4176, procedure 1) due to haze, run ASTM d 2709. The fuel shall be acceptable for appearance if the water and sediment content meets the applicable limit. If the sample fails clear and bright due to visible sediment, but it meets the applicable particulate contamination limit by ASTM D 6217, then the fuel shall be considered acceptable for use.

[2] Cetane Index can only be run if no ignition improvers are present. Otherwise, Cetane number shall be given.

[3] Kerosene. Grade No.-1K only, if intended for non-flue connected burner.

[4]Test to be performed if equipment is available.

C-3.5 CONVERSION CHART FOR TANK CARS AND TANK TRUCKS

Conversion Chart for Tank Cars and Tank Trucks[1]

	PRODUCT TO BE LOADED			
LAST PRODUCT CARRIED	Gasoline MOGAS	Jet Fuels: Jet A/A-1, JP-8, JP-5	[2]Jet Fuel: JPTS	FSII
Gasoline: AVGAS, MOGAS	Drain/ Empty	Steam Dry	Steam Dry	Steam Dry
Jet Fuels: Jet A/A-1, JP-8, JP-5	Drain/ Empty	Drain/Empty[3]	Steam Dry[3]	Steam Dry
Jet Fuel: JPTS	Drain/ Empty	Drain/ Empty	Drain/ Empty	Steam Dry
Petroleum Solvent or Paint Thinner	Steam Dry	Drain/Empty	Steam Dry	Steam Dry
Diesel Fuels: F-76, DL1, DL2, DF1, DF2, 1-D, 2-D, FS1, FS2	Steam Dry[3]	Drain/Empty[3]	Steam Dry[3]	Steam Dry
Lubricating Oils	NO LOAD	NO LOAD	NO LOAD	Steam Dry
ASTM D975 No.4D, FS4, FS5, FS6, IFOs	NO LOAD	NO LOAD	NO LOAD	NO LOAD
Naphtha	Drain/ Empty	Steam Dry	Steam Dry	Steam Dry

NOTES:

[1] Individual Services will provide specific guidance for conversion of refueling equipment that exclusively handles Service petroleum products, e.g.: Air Force guidance is contained in T.O. 42B-1-1, Table 3-1.

[2] To be loaded only in aluminum, stainless steel equipment or equipment lined with an approved epoxy coating. If equipment is coated, clean with hot fresh water not exceeding 58°C (136°F) and dry thoroughly.

[3] If previous cargo contained dye marker, all traces of color must be removed.

GENERAL INSTRUCTIONS:

1. Equipment carrying DESC-Owned product will be substantially free from loose rust, scale and dirt.

2. Saran lined equipment should not be steam cleaned; water wash should suffice.

3. Petroleum products will not be loaded into the transportation equipment whose previous cargo was caustic, acid, chlorinated solvents, or vegetable oils.

4. Tank trucks in liquid fertilizer service shall not load aviation turbine fuels directly, but shall carry out at least two loads of commercial gasoline prior to the aviation turbine fuel load.